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October 30, 2015

Mr. John Blevins  
Compliance Assurance & Enforcement Division  
Division Director 6EN  
U.S. EPA, Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733

**SUBJECT: Hazardous Waste Regulatory Standards for Thermal Desorption Units at TSDFs**

Dear Mr. Blevins:

Thermal desorption units (TDUs) are broadly used to treat hazardous waste and hazardous secondary materials. The application of thermal desorption technology within a recycling or reclamation process has been reviewed by Region 6 in multiple enforcement cases. The resulting allegations and consent agreements have established EPA's regulatory position. This letter presents my understanding of EPA's position on certain regulatory and technical requirements for TDUs that are installed at a RCRA treatment storage and disposal facility (TSDF).

A TDU is a thermal treatment device that heats solid material to vaporize, remove, and separate organic constituent materials from the solids. The solids are discharged with little or no residual organic contaminants. In the embodiment that is the subject of this letter, the separated organic constituents are condensed and recovered as a liquid. The TDU process characteristically generates a vent gas after the condensing system. When high organic content material is processed in the TDU it is quite common for the unit to combust the vent gas as an effective means of air pollution control. It is the regulatory applicability related to the combustion of all or a portion of the vent gas that I am seeking clarification.

#### **TDUs at RCRA TSDFs.**

One application of thermal desorption technology is to commercially reclaim oil from various generators of oil bearing hazardous waste. These hazardous wastes are generated by petroleum refining, production and transportation practices, and are typically listed as either K048, K049,

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K050, K051, K052, K169, K170, K171, K172, F037 or F038, or may be hazardous by characteristic (i.e. "D" coded). If the hazardous waste recycled in the TDU comes exclusively from the above sources, the oil reclaimed from the TDU may be burned as a non-hazardous fuel if it meets the Used Oil Specification (UOS) at § 279.11, as per 40 CFR § 261.6(a)(3)(iv)(C). If the oil does not meet the UOS, it would remain a listed waste and require disposal at an appropriately permitted and operated facility, such as a Part 266 "BIF" or a Part 264 Subpart O incinerator. The generator will manifest and ship oil bearing hazardous waste to the commercial facility for treatment and/or reclamation. Based on two focused enforcement actions in EPA Region 6 since 2008, it appears EPA has concluded the following findings and regulatory requirements apply to commercial TDUs receiving offsite RCRA hazardous waste for treatment or reclamation.

1. For a TDU that combusts all or a portion of the vent gas, combustion of the TDU vent gas from RCRA hazardous waste or recyclable RCRA regulated materials is considered thermal treatment that is regulated by RCRA.
2. Thermal treatment of the vent gas requires a RCRA permit, 40 CFR Part 264 Subpart X or Subpart O, and a RCRA permit under one of these Subparts is required even if the facility is operating as a RCRA exempt recycling activity.
3. For TDUs with vent gas combustion processes that are permitted under RCRA Subpart X, the RCRA permitting authority should include in the permit application and final permit appropriate conditions from RCRA Subparts I through O, AA, BB and CC, and also include appropriate conditions from Part 63 Subpart EEE (i.e. the MACT "EEE").
4. The TDU must have an automatic waste feed cutoff system and establish appropriate operating parameter limits (OPLs) prior to initial operation to assure continued compliance with all emissions limits.
5. Minimum appropriate conditions from the MACT "EEE" include compliance with emission limits for particulate matter, hydrochloric acid, volatile metals (Hg), semivolatile metals, low volatile metals, destruction and removal efficiency, carbon monoxide, total hydrocarbons, and dioxins.
6. A compliance demonstration test (Trial Burn) is required to establish that the emissions from the combustion of the vent gas meet the emissions limits that were determined appropriate for the unit, including MACT "EEE."
7. Final OPLs shall be derived from demonstrated test conditions and established as permit requirements for the continued operation of the TDU.
8. Failure to demonstrate compliance with emissions limits requires shutdown of the TDU on RCRA regulated waste materials until corrective measures and re-demonstration can be implemented.

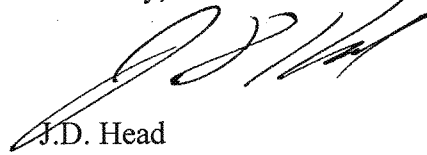
Please confirm that each of these enumerated statements accurately reflect EPA's regulatory conclusions for the management of commercial TDUs that combust vent gases generated from receiving offsite hazardous waste for treatment or reclamation at a TSDF.

Your support in clarifying these matters is most appreciated. My client intends to construct and install one or more TDUs in Region 6 that may be located at a TSDF and desires regulatory certainty on the issues discussed herein.

Mr. John Blevins  
Regulatory Standards

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Sincerely,

A handwritten signature in black ink, appearing to read 'J.D. Head', written over the printed name.

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